AMENDMENT TO THE CLAIMS

1. (Canceled)

2. (Currently amended) The slider of claim ~~39~~ 10, wherein a height of the responsive aeroelastic deposit above a portion of the hydrodynamic surface increases as the responsive aeroelastic deposit expands responsively to the stimulus.

3. (Currently amended) The slider of claim ~~39~~ 10, wherein the responsive aeroelastic deposit shears as it expands responsively to the stimulus.

4. (Currently amended) The slider of claim ~~39~~ 10, wherein the responsive aeroelastic deposit bends as it expands responsively to the stimulus.

5. (Currently amended) The slider of claim ~~40~~ 10, wherein the stimulus comprises heat.

6. (Currently amended) The slider of claim ~~40~~ 10, wherein the stimulus comprises an electric voltage or an electric current.

7. (Currently amended) The slider of claim ~~40~~ 10, wherein the stimulus comprises a magnetic field.

8. (Currently amended) The slider of claim ~~40~~ 10, wherein the stimulus comprises electromagnetic radiation.

9. (Currently amended) The slider of claim ~~40~~ 10, wherein the stimulus comprises humidity.

10. (Currently amended) ~~The~~ A slider ~~of claim 1~~, comprising:

a substrate, having a first coefficient of expansion responsive to a stimulus;

a transducer disposed on the substrate, the transducer having a second coefficient of expansion responsive to the stimulus that is greater than the first coefficient of expansion; and

a hydrodynamic surface comprising at least a portion of a bearing surface and a responsive aeroelastic deposit having a third coefficient of expansion responsive to the stimulus that is greater than the first coefficient of expansion;

wherein the responsive aeroelastic deposit comprises at least a portion of a convergent channel.

11. (Currently amended) ~~The~~ A slider ~~of claim 1~~, comprising:

a substrate, having a first coefficient of expansion responsive to a stimulus;

a transducer disposed on the substrate, the transducer having a second coefficient of expansion responsive to the stimulus that is greater than the first coefficient of expansion; and

a hydrodynamic surface comprising at least a portion of a bearing surface and a responsive aeroelastic deposit having a third coefficient of expansion responsive to the stimulus that is greater than the first coefficient of expansion;

wherein the responsive aeroelastic deposit comprises at least a portion of a channel wall.

12. (Currently amended) The slider of claim ~~39~~ 10, wherein the responsive aeroelastic deposit comprises at least a portion of an above-ambient pressure formation.

13. (Currently amended) ~~The~~ A slider ~~of claim 1~~, comprising:

a substrate, having a first coefficient of expansion responsive to a stimulus;

a transducer disposed on the substrate, the transducer having a second coefficient of expansion responsive to the stimulus that is greater than the first coefficient of expansion; and

a hydrodynamic surface comprising at least a portion of a bearing surface and a responsive aeroelastic deposit having a third coefficient of expansion responsive to the stimulus that is greater than the first coefficient of expansion;

wherein the responsive aeroelastic deposit comprises at least a portion of a cavity dam.

14. (Currently amended) The slider of claim ~~1~~ 10, wherein the responsive aeroelastic deposit comprises at least a portion of a cavity wall.

15. (Currently amended) The slider of claim ~~39~~ 10, wherein the responsive aeroelastic deposit comprises at least a portion of a sub-ambient pressure formation.

16. (Currently amended) The slider of claim ~~39~~ 10, wherein the responsive aeroelastic deposit is comprised on at least a portion of a cavity surface of the slider.

17. (Currently amended) The slider of claim ~~39~~ 10, wherein the responsive aeroelastic deposit is comprised on at least a portion of a bearing surface of the slider.

18. (Currently amended) The slider of claim ~~39~~ 10, wherein the responsive aeroelastic deposit is comprised on at least a portion of a side surface of the slider.

19. (Currently amended) The slider of claim ~~1~~ 10, wherein the responsive aeroelastic deposit is comprised on at least a portion of a leading surface of the slider.

20. (Currently amended) The slider of claim ~~39~~ 10, wherein the responsive aeroelastic deposit is comprised on at least a portion of a trailing surface of the slider.

21. (Currently amended) The slider of claim ~~40~~ 10, wherein the third coefficient of expansion is less than the second coefficient of expansion.

22. (Currently amended) The slider of claim ~~1~~ 10, wherein at least a portion of the responsive aeroelastic deposit is disposed adjacent to the transducer to form a convergent channel, comprising a cavity surface comprising the responsive aeroelastic deposit, and a channel wall comprising the transducer.

23. (Currently amended) The slider of claim ~~1~~ 10, wherein the responsive aeroelastic deposit comprises at least a portion of a debris shield.

24. (Currently amended) The slider of claim ~~40~~ 10, wherein the responsive aeroelastic deposit comprises at least a portion of a landing pad.

25. (Currently amended) The slider of claim ~~40~~ 10, wherein at least a portion of the responsive aeroelastic deposit has a shape and position on the hydrodynamic surface such that an expansion of the responsive aeroelastic deposit causes a roll of the slider to increase.

26. (Currently amended) The slider of claim ~~40~~ 10, wherein at least a portion of the responsive aeroelastic deposit has a shape and position on the hydrodynamic surface such that expansion of the responsive aeroelastic deposit causes a pitch of the slider to increase.

27. (Currently amended) The slider of claim ~~40~~ 10, wherein at least a portion of the responsive aeroelastic deposit has a shape and position on the hydrodynamic surface such that expansion of the responsive aeroelastic deposit causes a lift of the slider to increase.

28. (Previously presented) The slider of claim 27,

wherein the slider faces an opposing surface defining a fly height of the slider measured from the opposing surface to the transducer; and

wherein at least a portion of the responsive aeroelastic deposit has a shape and position on the hydrodynamic surface such that expansion of the deposit toward the opposing surface causes the fly height of the slider to increase.

29-40. (Canceled)

41. (New) The slider of claim 11, wherein a height of the responsive aeroelastic deposit above a portion of the hydrodynamic surface increases as the responsive aeroelastic deposit expands responsively to the stimulus.

42. (New) The slider of claim 11, wherein the stimulus comprises heat.

43. (New) The slider of claim 11, wherein the stimulus comprises an electric voltage or an electric current.

44. (New) The slider of claim 11, wherein the stimulus comprises a magnetic field.

45. (New) The slider of claim 11, wherein the stimulus comprises humidity.

46. (New) The slider of claim 13, wherein a height of the responsive aeroelastic deposit above a portion of the hydrodynamic surface increases as the responsive aeroelastic deposit expands responsively to the stimulus.

47. (New) The slider of claim 13, wherein the stimulus comprises heat.

48. (New) The slider of claim 13, wherein the stimulus comprises an electric voltage or an electric current.

49. (New) The slider of claim 13, wherein the stimulus comprises a magnetic field.

50. (New) The slider of claim 13, wherein the stimulus comprises humidity.

51. (New) The slider of claim 13, wherein the responsive aeroelastic deposit comprises at least a portion of a debris shield.